to a set of input data, wherein the plurality of sets of gamma corrected data includes a set of gamma corrected data for each of the plurality of gamma correction curves; and

a selection block operably coupled to the gamma correction lookup table, such that the selection blocks automatically selects a selected set of gamma corrected data from the plurality of sets of gamma corrected data based on a gamma selection information.

## **RESPONSE**

Applicant respectfully traverses and request reconsideration.

Applicant respectfully asserts confusion regarding the current standing of claims 15, 16 and 19. Regarding claims 15 and 16, Applicant respectfully submits that these claims were noted as being objected to as being dependent upon a rejected based claim in the previous Office Action, but have currently been omitted from any reference in the present Office Action. Regarding claim 19, the Examiner previously issued a restriction/election requirement requiring the Applicant to elect between claims 1-9 and 14-18 or claims 10-13. In the response filed March 18, 2002, Applicant traversed the restriction/election requirement but thereupon elected claims 1-9 and 14-18. In the present pending application, Applicant has never provided an affirmative statement regarding the election or restriction of claim 19 and the Examiner has not explicitly provided claim 19 as being drawn to one of the two asserted inventions. As such, Applicant asserts that claim 19 is currently pending and respectfully submit that the Examiner has failed to provide a rejection regarding the claim 19. As such, Applicant respectfully requests a withdrawal of the finality of the present Office Action and requests a new non-final Office Action stating the status or pendency of claim 19.

Regarding claims 10-13, Applicant cancels claims 10-13 in response to the restriction election previously asserted. Once again, Applicant respectfully traverses the restriction election requirement but in order to be compliant with the present Office Action, withdraw claims 10-13 from consideration as being drawn to a non-elected invention.

Claims 1-9, 14 and 17 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,359,702 ("Mukai"). Mukai teaches, *inter alia*, an image signal interface system for converting an analog image signal to a digital image signal, a table memory for storing attribute data and a control unit for reading the attribute data from the table memory and controlling the conversion of the image signal based on the attribute data. More specifically, Mukai teaches,

inter alia, a medical image recording system having four different types of image signals, 12A-12D, wherein each of the image signals sources has a CRT for displaying an image. Each of the image signals further include control signals D<sub>A</sub>-D<sub>D</sub> which are image control series signals provided to an image signal interface system. An A/D converter is supplied with attribute data, such as data on sampling frequencies for the video signals S<sub>A</sub>-S<sub>D</sub> through a control unit. The A/D converter converts the video signals S<sub>A</sub>-S<sub>D</sub> to digital videos based on the supplied attribute data. The attribute data is stored as a device table, such as element 30A. Mukai teaches, among other things, the device table 30A contains channels CH0-CH3 which correspond to the contacts 19A-19D and 21A-21D of the electronic switches 18 and 20. The attribute data in the device table 30A is selected according to the number of a channel which is entered through a control panel manually by an operator, such as a doctor, and stored into a device table memory. The digital image from the A/D converter is stored one frame at a time in a frame memory and are converted by a lookup table setting unit 40 which affects gamma correction image signals. The lookup table setting unit 40 stores a gamma correcting table which is generated by the control unit 26 and a lookup table generator 44. The gamma correcting table is generated on the basis of control information introduced from the communication interface 24 in response to which one of the four channels of image signal sources is supplied to the A/D converter. Mukai teaches, inter alia, generating a single gamma correction table and storing the single gamma correcting table in a gamma correcting table memory, wherein the gamma correction table is generated in response to the communication interface 24 in response to a determination by a controller, such as a doctor, manually determining which channel, CH0-CH3 is activated and stored in the device table memory.

Mukai further teaches, *inter alia*, that multiple gamma correcting tables 100A-100D for use with video signals S<sub>A</sub>-S<sub>D</sub> are stored in an external memory, such as a floppy disk. Based on information within the control unit from the communication interface, among other things, the control unit determines which one of the gamma correcting tables to utilize for providing a gamma correction for the image within the frame memory 38 to the output interface 42. More specifically, Mukai teaches, *inter alia*, that the specific gamma correcting table is chosen in response to "the number of a channel CH which is entered through a control panel 32 by the operator, such as a doctor, and stored into a device table memory 34" col. 4, lines 51-53.

Moreover, Mukai states that:

"the control unit 26 fetches the desired data from the device table 30A stored in the external memory 28 based on the channel number entered from the control panel 32, and stores the fetch data into the device table memory 34. If the channel 0 corresponds to the image signal source 12A, then attribute data such as the sampling frequency P, the horizontal input period TH, the vertical input period TV corresponding with the channel 0 are stored as the video table 36 in the device table memory. Also, the gamma correcting table 100A corresponding to the channel 0 is fetched from the device table 30D and stored in the gamma correcting table 46." Col. 6, lines 43-54.

As such, Mukai requires an operator to physically enter a specific channel request and that specifically manually entered channel request thereupon determines which gamma correcting table is provided.

Claim 1 recites, among other things, "a gamma table selector that automatically selects the set of output data corresponding to one of the plurality of lookup tables based on gamma selection information." Applicant respectfully submits that Mukai fails to disclose the claimed present invention of claim 1 because, among other things, Mukai does not automatically select the set of output data, but only selects the gamma correcting table in response to the manually entered channel choice between channel 0-3. Furthermore, Applicant respectfully submits that Mukai fails to disclose, inter alia, that the set of output data corresponding to one of the plurality of lookup tables is selected based on gamma selection information. Mukai clearly discloses that the specific gamma correcting table which is loaded into the lookup table setting unit 40 of FIG. 1 is chosen based on the communication interface 24 receiving a determination as to which channel has been manually activated by an end user. It is respectfully submitted that a determination of which channel, channel 0-channel 3 is inconsistent with the claimed limitation of gamma selection information. Applicant respectfully submits that Mukai operates in a completely different manner and produces a completely different approach regarding the utilization of gamma correction information for correcting images. Mukai teaches, generating a lookup table for a specific input, based on which input is selected by an end user, and claim 1 claims, among other things, automatically selecting the set of output data based on gamma selection information. Applicant respectfully submits that Mukai utilizes a completely different approach from the present invention.

Regarding claims 2-5, Applicant respectfully submits that these claims contain further patentable subject matter in view of Mukai. For example, claim 4 claims, among other things,

the gamma table selector further comprises a multiplexor that receives a set of output data from the plurality of gamma correction lookup tables and wherein the multiplexor selects a selected set of output data from the sets of output data based on the gamma selection information. As stated above, Mukai teaches, *inter alia*, a control unit 26 determining which gamma correcting table provides the lookup table generator 44 in response to the communication interface determining which channel, channel 0-channel 3, have been manually activated by a controller.

Therefore, Applicant respectfully requests reconsideration and withdrawal of the present rejection regarding claims 1-5. Applicant further respectfully submits that the amendment to claim 1 is not a narrowing amendment, but merely delineation of limitations already inherently contained therein. Should the Examiner feel the present amendment is a narrowing amendment, Applicant respectfully request a statement explicitly stating the Examiner's position.

Regarding claim 6, Applicant respectfully traverses and requests reconsideration. Applicant respectfully resubmit the above position regarding claim 1, and submit that Mukai fails to disclose, among other things, "a selection block operably coupled to the gamma correction lookup table, such that the selection block automatically selects a selected set of gamma corrected data from the plurality of sets of gamma corrected data based on a gamma selection information." As stated above, Applicant respectfully submits that Mukai fails to disclose the selection block automatically selecting a selected set of gamma corrected data and further submits that Mukai fails to disclose the claimed gamma selection information. Once again, Mukai teaches, among other things, determining which gamma correcting table to load into the lookup table setting unit 40 in response to a determination of which channel, channel 0-channel 3 has been manually activated by an end user. As such, Applicant respectfully requests reconsideration and withdrawal of the present rejection. Furthermore, Applicant respectfully submits that the amendment to claim 6 is not a narrowing amendment, but merely a delineation of limitations already inherently contained therein. Should the Examiner feel otherwise, Applicant requests an explicit statement asserting these amendments to be narrowing in nature.

Regarding the rejection of claims 7-9, and 14, Applicant respectfully traverses and request reconsideration. Claims 7-9, and 14 recites, among other things, a lookup table that stores gamma corrected data corresponding to a plurality of gamma correction curves. Claims 7-8 further claims, *inter alia*, the lookup table receiving input signals that select a set of gamma corrected data from the lookup table, where the claimed input signal has a first portion and a

second portion. The first portion selects a particular gamma correction curve and a second portion selects the set of gamma corrected data from the particular gamma correction curve. As stated above with respect to the teachings of Mukai, Applicant respectfully submits that Mukai does not teach, among other things, the claimed input signal having a first portion or second portion. Rather, Mukai teaches an input signal coming from the communication interface which is derived from a controller manually entering which channel is utilized, wherein the communication interface 24 provides an indication of which channel has been chosen to the control unit 26. Mukai teaches that utilizing this information, a gamma correction lookup table is generated and provided to a lookup table setting unit 40 between the frame memory 38 and the output interface 42. Mukai does not disclose the claimed first portion selecting a particular gamma correction curve and the second portion selecting the set of gamma corrected data from a particular gamma correction curve. In support of the present rejection, the Examiner indicates that Mukai discloses the claimed limitation at col. 5, lines 10-20 and 28-34, to which Applicant respectfully traverses. On page 4 of the present Office Action, the Examiner asserts that "the first portion of the signal selects a particular correction curve (col. 5, lines 28-34) and the second portion of the signal selects the corrected data from the particular curve (col. 5, lines 34 at seq.). Applicant respectfully asserts confusion regarding the Examiner's support for the present rejection as the cited passages reads as follows:

"...PD 16 on a hardcopy HP is proportional to the level of an image signal S6 applied to the image output device 16, and also assume that gamma characteristics 100AI (ideal gamma characteristics) for reproducing an image PCR 1 displayed on the CRT 13 of the image signal source 12A with high fidelity on a hardcopy HP as shown in FIG. 6(b).

If no gamma correction were affected on the image signal in the lookup table setting unit 40, then the signal S6 apply to the image output device 16 would be substantially identical to the video signal SA and have gamma characteristics 100AX (FIG. 6(c)) (hereinafter referred to as "uncorrected gamma characteristics") which deviate from the ideal characteristics 100AI (FIG. 6(b))...."

Applicant respectfully submit the above-noted passage upon which the Examiner has relied fails to disclose the claimed present invention of claim 7. Furthermore, as discussed above, Mukai does not disclose the claimed limitations of claims 7-9, and 14 because, among other things, Mukai does not utilize an input signal for selecting gamma corrected data from a lookup table where the input signal is a first portion and a second portion, but rather only utilizes a control signal that indicates which particular channel has been activated. As such, Applicant

respectfully requests reconsideration and withdrawal of the claimed present rejection. Should the Examiner maintain the rejection, Applicant once again requests a showing, including column and line number, of where explicitly each of these claimed limitations are disclosed by Mukai as Applicant fails to understand where these limitations are disclosed within col. 5, lines 10-20, 28-34, and 34 at seq.

Regarding the rejection of claim 17, Applicant respectfully resubmits the above position with respect to claim 7-9 and 14. Applicant further respectfully submits that Mukai fails to disclose "selecting a set of gamma corrected data from a plurality of sets of pre-computed gamma corrected data based on the pixel information and gamma selection information." As discussed above, Mukai discloses choosing the gamma correction information for the lookup table setting unit 40 based on the communication interface determining which channel has been accessed by an end user. As such, Applicant respectfully request reconsideration and withdrawal of the present rejection.

Applicant acknowledges the objection to claim 18 as being dependent upon a rejected base claim, but respectfully submit that in view of the reasoning stated above, the objection is improper. It is respectfully submitted that claim 17 is not anticipated by the teachings of Mukai and as such, claim 18 is rendered allowable. As such, Applicant requests the withdrawal of the objection to claim 18.

In the event that claims 15 and 16 also stand objected to, but have been omitted from the present Office Action, (see, Paper No. 3), Applicant respectfully submits that in view of the above with respect to claim 14, any objection to claims 15 and 16 is obviated herein. As such, Applicant requests withdrawal of a perspective objection to claims 15 and 16 and the passage of these claims to issuance.

In the response to arguments section in the present Office Action, Applicant respectfully traverses the Examiner's assertion that Mukai discloses that it may be possible to provide a plurality of image output devices having different gamma characteristics and further to select one of such output device with a medical apparatus as disclosing the claimed table selector, which selects output data corresponding to one of the plurality of lookup tables based on gamma selection information. Upon closer inspection of the Examiner's statements, the Examiner has made an analogy between providing "a plurality of image output devices" and selecting "one of such output devices with a medical apparatus" as disclosing a table selector, as claimed in the

present invention. The present application clearly defines the claimed limitation of the table selector, see, for example, page 4, lines 10-13. The claimed gamma table selector receives output data and selects a gamma corrected data set which is wholly inconsistent with the Examiner's statement regarding the teachings of col. 2, lines 11 at seq. As such, Applicant respectfully traverses the Examiner's statement and submits the statement does not provide adequate support for the assertion that Mukai discloses the claimed table selector.

The Examiner further asserts that Mukai discloses in col. 4, lines 24 at seq., electronic switches in supplying the signal through a control unit. Applicant respectfully traverses this assertion as disclosing the claimed gamma table selector in a multiplexor. As discussed above, the control unit and the electronic switches determine which gamma correction data is provided to the lookup table setting unit 40 based on which channel is accessed, which is wholly inconsistent with the claimed present invention and the claimed limitations contained herein. As such Applicant respectfully traverses the Examiner's statement contained herein.

Attached hereto is a marked-up version of the changes made to the drawings and claims by the current amendment. The attached page is captioned "MARKED-UP VERSION TO SHOW CHANGES MADE."

Applicants respectfully submit that the claims are in condition for allowance and respectfully request that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted

Timothy J. Blechen

Registration No. 48,126

Date: August 15, 2002

VEDDER, PRICE, KAUFMAN & KAMMHOLZ 222 N. LaSalle Street Chicago, IL 60601 (312) 609-7500

FAX: (312) 609-5005